

SUPPORT FOR THE AMENDMENTS

Claims 15, 16, 18 19, 20, 21, 22, 24 and 25 are amended to use wording, structure and proper antecedent basis consistent with U.S. patent law practice.

Support for the amendment of Claim 15 is found on page 3, lines 17-24, in the specification.

No new matter is believed added to this application by the amendments herein.

Claims 15 – 25 are active. Claims 1-14 were previously canceled.

REMARKS/ARGUMENTS

The claimed invention is directed to a method for the preparation of aqueous dispersions of polyurethane polymers. Such dispersions are utilized as components in primers, surface coating agents, pigmented topcoat materials, bonding agents and coating agents. A methods to prepare aqueous polyurethane dispersions employing reduced amounts of solvent, wherein the prepolymer solutions have lower viscosity and the resulting coating films have improved weathering resistance is sought.

The claimed invention addresses this problem by providing a process for preparing an aqueous polyurethane dispersion according to the description of Claim 15 and claims dependent thereon. No such process is disclosed or suggested in the cited references.

Applicants wish to thank Examiner Frank and Examiner Sergent for the useful and courteous discussion of this application with Applicants' U. S. representative on May 20, 2008. At that time Applicants' U.S. representative suggested and discussed amendments to the claims to address the 35 U.S.C. 112 rejections stated in the Office Action of March 13, 2008. The descriptions of the cited references were reviewed and contrasted with the claimed invention. Applicants' U.S. representative noted that Galan et al. does not disclose or suggest an aqueous polyurethane dispersion or a polyurethane polymer containing hydrophilic

groups. Applicants thank the Examiners for the suggestion that a declaration showing unexpected results would be beneficial to success in prosecution of this application. The following reiterates and expands upon that discussion.

The rejection of Claim 25 under 35 U.S.C. 102(b) over Galan et al. (U.S. 4,757,095) is respectfully traversed.

Galan does not disclose or suggest a method for preparing an aqueous dispersion of a water dispersible polyurethane.

Galan describes a process for preparing a polyurethane-polyurea composition utilizing prepolymers prepared in the presence of lactones or lactams. The prepolymers are then employed to prepare the polyurethane-polyurea composition as microcellular foams. Nowhere does this reference disclose that the polyurethane is water dispersible nor is there any suggestion regarding water dispersibility of the polymer composition. Galan is directed to a non-aqueous technology (microcellular foam systems) employing polymers not specifically composed to be water dispersible and therefore does not describe or suggest a method for preparing an aqueous dispersion.

In contrast, Claim 25, as presently stated, describes a method for preparing an aqueous dispersion of a water dispersible polyurethane.

In view of the above, Applicants respectfully submit that the cited reference can neither anticipate nor render obvious the invention according to Claim 25. Accordingly, withdrawal of the rejection of Claim 25 under 35 U.S.C. 102(b) over Galan is respectfully requested.

The rejection of Claims 15-24 under 35 U.S.C. 103(a) over Bruchmann et al. (DE 10161156; U.S. 2005/0043467) in view of Galan is respectfully traversed.

The cited combination of references neither discloses nor suggests a significant improvement in steam resistance as described in the attached letter to the International

Examination Authority in PCT/EP 2005/02687, the domestic priority application for the above-identified U.S. application and in the attached declaration.

Bruchmann describes an aqueous dispersion of a water dispersible polyurethane and a process for preparing the aqueous dispersion involving reacting the monomers in the presence of a cesium salt. Several methods for preparing the dispersion are described in paragraphs [0082-0085]. Nowhere does this reference disclose or suggest the addition of N-ethyl- or N-cyclohexylpyrrolidone to the preparation of the polyurethane and specifically does not disclose or suggest addition of the N-ethyl- or N-cyclohexylpyrrolidone to the preparation of the prepolymer mixture.

The Office has admitted this deficiency and has cited Galan to show the use of lactones and lactams. N-ethylpyrrolidone is cited in a group of 13 lactams including N-methylpyrrolidone. Nowhere does this reference disclose or suggest any advantage or improved result due to N-ethylpyrrolidone. Galan does not cite N-cyclohexylpyrrolidone.

Applicants respectfully submit the attached letter to the International Examination Authority in PCT/EP 2005/02687, an English translation of pages 3 to 6 and a declaration by Dr. Karl Haberle, an inventor of record in this application, describing experiments to prepare aqueous dispersions according to the claimed invention and compare steam resistance of coatings prepared with them to coatings of an aqueous polyurethane dispersion including N-methylpyrrolidone. In the described experiments water dispersible polyurethanes according to the invention are prepared in the presence of N-methylpyrrolidone, N-ethylpyrrolidone and N-cyclohexylpyrrolidone. The prepared aqueous dispersions are coated on a substrate and tested for steam resistance. The inventive samples show significant improvement in steam resistance compared to the coating prepared with the aqueous polyurethane dispersion containing N-methylpyrrolidone. Such results are not expected and are not disclosed or

suggested by either Galan or Bruchmann and certainly not by the combined description of Bruchmann and Galan.

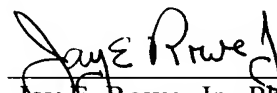
In view of the above, Applicants respectfully submit that the cited combination of references can neither anticipate nor render obvious the claimed invention. Accordingly, withdrawal of the rejection of Claims 15-24 under 35 U.S.C. 103(a) over Bruchmann in view of Galan is respectfully requested.

The rejections of Claims 24 and 25 under 35 U.S.C. 112, second paragraph, and 35 U.S.C. § 101 are obviated by appropriate amendment. Claims 24 and 25 are herein amended to describe active steps involved in the claimed methods. Accordingly, withdrawal of the rejections of Claims 24 and 25 under 35 U.S.C. 112, second paragraph, and 35 U.S.C. § 101 is respectfully requested.

Applicants respectfully submit that the above-identified application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

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